line 26, change "Πtn/Πtn" to

$$--\prod_{n=1}^{j} Tn / \prod_{n=1}^{k} Tn--$$

Page 32, line 7, change "0.886" to --0.842--;

line 8, change "I12" to --I13-- and change "0.07" to --0.263--.

Page 33, line 25, change "Uk' = mUk = m x (λ/NA_{FL}) = (NAF/NAI) x (λ/NAF)" to --Uk' = mUk = m x (λ/NAF) = (NAF/NAI) x (λ/NAF)--.

IN THE CLAIMS

Please cancel claims 1-12, without prejudice or disclaimer.

Please add the following new claims:

--13. An optical disk medium, comprising:

a substrate having a structure of an uneven-like shape on a flat surface;

a first reflecting film formed on the substrate and having a surface contoured to the uneven-like shape of the substrate, for reflecting a light having a predetermined wavelength;

a resin layer having an uneven-like shape on a flat surface directly formed on the first reflecting film; and

a second reflecting film formed on the resin layer and having a surface contoured to the uneven-like shape of the resin layer, for reflecting a light having a predetermined wavelength,

wherein the uneven-like shapes of the first and second reflecting films represent information, respectively.

14. An optical disk medium according to claim 13, wherein a construction arrangement of the optical disk medium satisfies an expression of,

$$\lambda/4 \geq | (1/8\ NB) \cdot \{(1/NB^2) - 1)\ NAF^4 \cdot \Delta d |$$

where λ is a wavelength of the light irradiated on the optical disk for reproducing information; NB is a refractive index of the substrate; NAF is a numerical aperture of the optical system for converging the light; and Δd is a displacement of optical axes of the first and second reflecting films from a predetermined reference surface.

15. An optical disk medium according to claim 13, wherein the first and second reflecting films lie in a range from a predetermined plane to $\pm 50\ \mu m$ in a direction perpendicular to the substrate.

16. An optical disk medium according to claim 13, wherein a distance d between the first and second films satisfies an expression of,

$$bMAX \leq d \times NAF$$

where bMAX is a pitch of a coarsest pattern of an information mark recorded on the optical disk medium; and NAF is a numerical aperture of an optical system for converging the light, and

wherein a radius of a light spot for a reflecting film adjacent to a reflecting film being reproduced is formed of a size larger than a pitch of the coarsest pattern of the information mark recorded on the optical disk medium.

17. An optical disk medium according to claim 13, wherein in a power spectrum of a modulated signal of information recorded on the optical disk medium, a distance d between the first and second reflecting films is determined so that a frequency at which said spectrum starts to abruptly fall is set to be higher than a cut-off frequency of an optical property function for an adjacent reflecting film.

18. An optical disk medium according to claim 13, wherein a construction arrangement of the optical disk medium satisfies an expression of,

$$\lambda/4 \geq \mid (1/8\ NB) \cdot \{(1/NB^2) - 1)\ NAF^4 \cdot \Delta d \mid$$

where λ is a wavelength of the light irradiated on the optical disk for reproducing information; NB is a refractive index of the substrate; NAF is a numerical aperture of the optical system for converging the light; and Δd is a displacement of optical axes of the first and second reflecting films from a predetermined reference surface;

and wherein a distance d between the first and second films satisfies an expression of,

$$bMAX \leq d \times NAF$$

where bMAX is a pitch of a coarsest pattern of an information mark recorded on the optical disk medium; and NAF is a numerical aperture of an optical system for converging the light, in which a radius of a light spot for a reflecting film adjacent to a

reflecting film being reproduced is formed of a size larger than a pitch of the coarsest pattern of the information mark recorded on the optical disk medium.

19. An optical disk medium according to claim 13, wherein a construction arrangement of the optical disk medium satisfies an expression of,

$$\lambda/4 \geq \left| (1/8\ NB) \cdot \{(1/NB^2) - 1)\ NAF^4 \cdot \Delta d \right|$$

where λ is a wavelength of the light irradiated on the optical disk for reproducing information; NB is a refractive index of the substrate; NAF is a numerical aperture of the optical system for converging the light and Δd is a displacement of optical axes of the first and second reflecting films from a predetermined reference surface; and

wherein in a power spectra of a modulated signal of information recorded on the optical disk medium, a distance d between the first and second reflecting films is determined so that a frequency at which said spectra starts to abruptly fall is set to be higher than a cut-off frequency of an optical property function for an adjacent reflecting film.

20. An optical disk medium according to claim 13, wherein the first and second reflecting films lie in a range from a predetermined plane to $\pm 50\ \mu m$ in a direction perpendicular to the substrate; and

wherein a distance d between the first and second films satisfies an expression of,

$$bMAX \leq d \times NAF$$

where bMAX is a pitch of a coarsest pattern of an information mark recorded on the optical disk medium; and NAF is a numerical aperture of an optical system for converging the light, wherein a radius of a light spot for a reflecting film adjacent to a

reflecting film being reproduced is formed of a size larger than a pitch of the coarsest pattern of the information mark recorded on the optical disk medium.

21. An optical disk medium according to claim 13, wherein the first and second reflecting films lie in a range from a predetermined plane to $\pm 50\ \mu m$ in a direction perpendicular to the substrate; and

wherein in a power spectra of a modulated signal of information recorded on the optical disk medium, a distance d between the first and second reflecting films is determined so that a frequency at which said spectra starts to abruptly fall is set to be higher than a cut-off frequency of an optical property function for an adjacent reflecting film.

22. An optical disk medium according to claim 13, wherein the first and second reflecting films are formed of a plurality of layers.

23. An optical disk medium, comprising:

a substrate having a structure of an uneven-like shape thereon;

a first film formed on the substrate and having a surface contoured to the uneven-like shape of the substrate:

an intermediate layer formed on the first film and having an uneven-like shape thereon; and

a second film formed on the intermediate layer and having a surface contoured to the uneven-like shape of the intermediate layer,

wherein the optical disk medium is arranged such that a light is irradiated through the substrate by an optical system to detect a reflected light from the first and second films so as to detect the uneven-like shape, and a construction arrangement thereof satisfies an expression of,

$$\lambda/4 \geq \left| \{1/(8NB)\} \cdot \{(1/NB^2) - 1\} NAF^4 \cdot \Delta d \right|$$

where λ is a wavelength of the light; NB is a reflective index; NAF is a numerical aperture of an optical system for converging the light; and Δd is a displacement of optical axes of the first and second films from a predetermined reference surface.

24. An optical disk medium, comprising:

a substrate having a structure of an uneven-like shape thereon;

a first film formed on the substrate and having a surface contoured to the uneven-like shape of the substrate; and

an intermediate layer formed on the first film and having an uneven-like shape thereon;

a second film formed on the intermediate layer and having a surface contoured to the uneven-like shape of the intermediate layer,

wherein the uneven-like shapes of the first and second films represent information, respectively, and

wherein the first and second films lie in a range from a predetermined plane to $\pm 50\ \mu m$ in a direction perpendicular to the substrate.

25. An optical disk medium according to claim 23, wherein a distance d between the first and second films satisfies an expression of,

$bMAX \leq d \times NAF$

where bMAX is a pitch of a coarsest pattern of an information mark recorded on the optical disk medium, and NAF is a numerical aperture of an optical system for converging the light; and

wherein a radius of a light spot for a reflecting film adjacent to a reflecting film being reproduced is formed of a size larger than a pitch of the coarsest pattern of the information mark recorded on the optical disk medium.

26. An optical disk medium according to claim 24, wherein a distance d between the first and second films satisfies an expression of,

$bMAX \leq d \times NAF$

where bMAX is a pitch of a coarsest pattern of an information mark recorded on the optical disk medium, and NAF is a numerical aperture of an optical system for converging the light; and

wherein a radius of a light spot for a reflecting film adjacent to a reflecting film being reproduced is formed of a size larger than a pitch of the coarsest pattern of the information mark recorded on the optical disk medium.

27. An optical disk medium according to claim 23, wherein in a power spectrum of a modulated signal of information recorded on the optical disk medium, a distance d between the first and second films is determined so that a frequency at which said spectrum starts to abruptly fall is set to be lower than a cut-off frequency of an optical property function for an adjacent reflecting film.

28. An optical disk medium according to claim 24, wherein in a power spectrum of a modulated signal of information recorded on the optical disk medium, a distance d between the first and second films is determined so that a frequency at which said spectrum starts to abruptly fall is set to be lower than a cut-off frequency of an optical property function for an adjacent reflecting film.

29. An optical information reproducing method, comprising the steps of:

providing an optical disk medium with a substrate having a structure of an uneven-like shape thereon, a first reflecting film formed on the substrate and having a surface contoured to the uneven-like shape of the substrate for reflecting a light having a predetermined wavelength, an intermediate layer formed on the first reflecting film and having an uneven-like shape on a flat surface, and a second reflecting film formed on the intermediate layer and having a surface contoured to the uneven-like shape of the intermediate layer, for reflecting a light having a predetermined wavelength;

irradiating a laser beam on the optical disk medium having said uneven-like shapes representing information on the first and second reflecting films by an optical system;

detecting a laser beam reflected from the first and second reflecting films; and

reproducing information from a detected signal,

wherein a construction arrangement of the optical disk medium satisfies an expression of,

$$\lambda/4 \geq \left| (1/8\ NB) \cdot \{(1/NB^2) - 1)\ NAF^4 \cdot \Delta d \right|$$

where λ is a wavelength of the light irradiated on the optical disk for reproducing information; NB is a refractive index of the substrate; NAF is a numerical aperture of the

optical system for converging the light; and Δd is a displacement of optical axes of the first and second reflecting films from a predetermined reference surface.

30. A method according to claim 29, wherein the first and second reflecting films lie in a range from a predetermined plane to $\pm 50\ \mu m$ in a direction perpendicular to the substrate.

31. A method according to claim 29, wherein a distance d between the first and second films satisfies an expression of,

$$bMAX \leq d \times NAF$$

where bMAX is a pitch of a coarsest pattern of an information mark recorded on the optical disk medium, and NAF is a numerical aperture of the optical system for converging the light.

32. A method according to claim 29, wherein in a power spectrum of a modulated signal of information recorded on the optical disk medium, a distance d between the first. and second reflecting films is determined so that a frequency at which said spectrum starts to abruptly fall is set to be lower than a cut-off frequency of an optical property function for an adjacent reflecting film.

33. A method according to claim 29, wherein the predetermined reference surface is a plane designed so that the optical system converges the laser beam through the substrate.--